

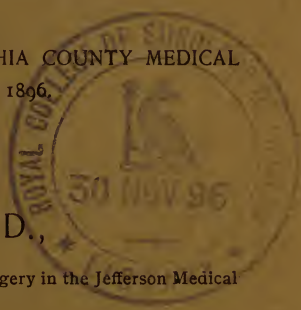
# Three Cases of Plastic Nasal Surgery—for Saddle-shaped Nose, Removal of Entire Nose, and Arched Roman Nose.

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BY

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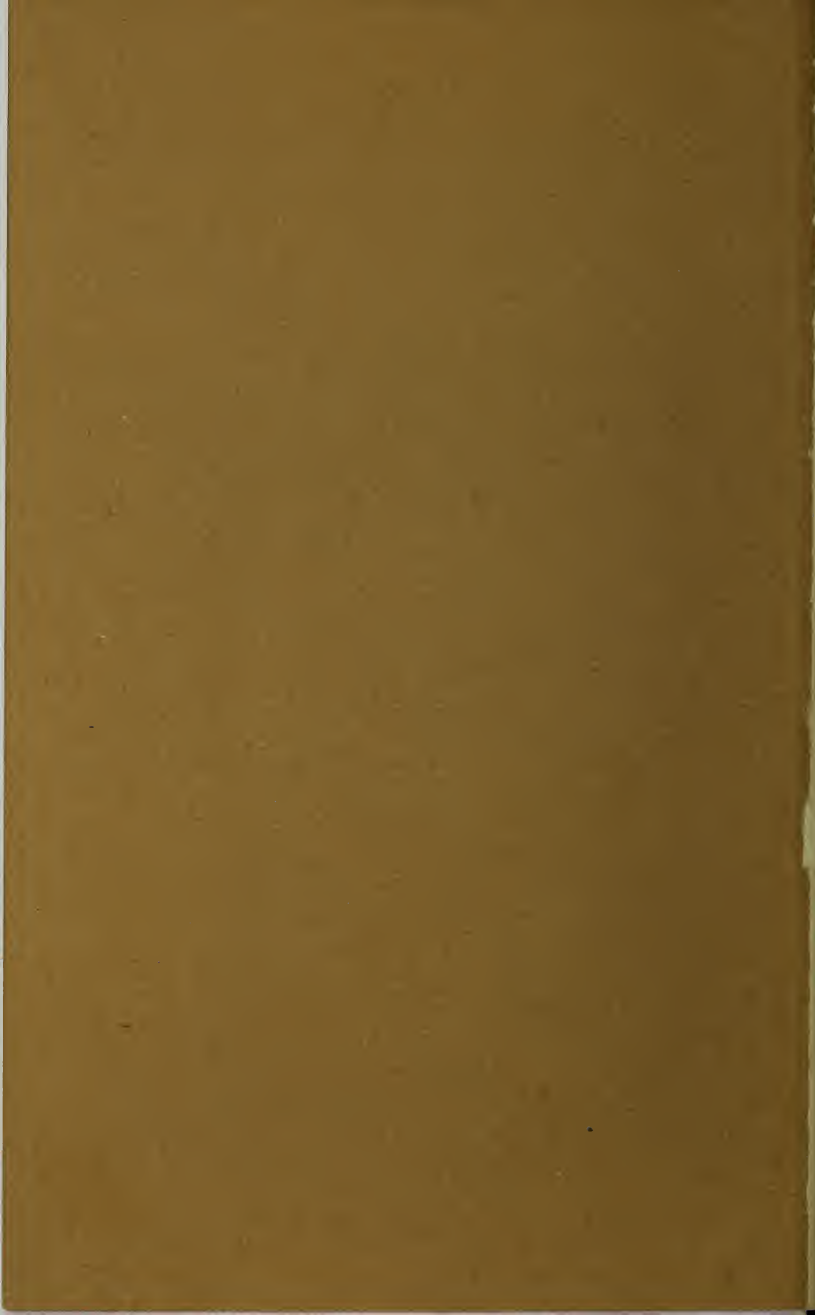



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*THREE CASES OF PLASTIC NASAL SUR-  
GERY—FOR SADDLE-SHAPED NOSE,  
REMOVAL OF ENTIRE NOSE,  
AND ARCHED ROMAN  
NOSE.*

BY W. W. KEEN, M.D.

CASE I.—SADDLE-SHAPED NOSE REMEDIED BY  
THE PERMANENT INSERTION OF A SILVER  
GILT PLATE.

On April 9, 1895, A. McG., a woman of  
twenty-five, was admitted to the Jefferson  
Medical College Hospital, for treatment of a



FIG. I.

deformed nose. Eighteen years previously  
she had fallen and fractured her nose (Fig.  
1). The bridge of the nose was almost en-

tirely obliterated, being scarcely more than an eighth of an inch above the level of the cheek, thus tipping her nose markedly upward and also making her mouth very oblique. I was consulted as to the possibility of remedying the deformity, and Dr. Walter J. Freeman kindly examined the nose and found that there was no impairment of either breathing or smell. I decided not to interfere in any way with the bones, but to carry out the following plan: Dr. W. J. Hall, a skillful dentist, who has paid special atten-

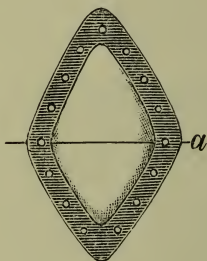


FIG. 2.

tion to the cure of such deformities, first took a cast of the nose, and upon this built up a wax nose which was satisfactory to the patient as well as to me. From this as a model he constructed an artificial bridge, consisting of two plates of silver soldered together; the posterior plate corresponding to the shape of the bones, the anterior plate (somewhat smaller—Fig. 2) corresponding to the desired outline of the remodeled nose; the space between

the two plates was left vacant, but was entirely closed by soldering them together. The picture gives a front view of the plate. This made the piece to be inserted much lighter than it otherwise would have been. All around the margin a row of small holes was drilled, which, it had occurred to me, would fix the plate firmly in place by granulation tissue pushing through the apertures



FIG. 3.

and being probably later transformed into fibrous tissue. The plate was then polished and heavily gold-plated.

On April 19, 1895, a transverse incision was made just above the alæ of the nose, and the superficial tissues loosened as far as the lower border of the frontal bone on each side, and slightly toward the tip, below the transverse incision. My object in loosening the

soft parts towards the tip of the nose was to prevent the edge of the plate from protruding. The gilded plate was then inserted, and the opening closed by Halsted's subcuticular suture. The suture was removed six days after its insertion. The highest temperature was  $99.4^{\circ}$ . A bleb formed over the bridge of the nose, but soon healed.

The result is shown in the photograph (Fig. 3). The gold plate has never caused the slightest inconvenience, and on seizing the nose by the thumb and finger the plate seems to be very firmly fixed in place.

Up to the night before the operation, I had believed that my idea was entirely original, but on that evening Dr. Taylor pointed out to me a paper in the London *Lancet* for February 17, 1894, by Dr. S. K. Ellison, of Adelaide, South Australia, reporting the insertion of a nasal plate which, from the description, I am led to believe was practically identical with my own. His operation was done in 1886, and after seven years the plate was still retained with entire comfort.

In a similar case I should be inclined to make an incision on one side of the nose sufficiently large to allow of insertion of the plate, with a very small incision upon the other side for the purpose of loosening the tissues from the bony and cartilaginous nose. The photograph shows the worse side of my patient's nose, where the scar is much more evident than upon the other side.

Since this operation was done, I have seen the notes of several other somewhat similar cases. In the *Medical Record* of April 27,



1895, Dr. Weir reports the treatment of a case with a celluloid plate. He first attempted to use gutta percha, which proved unsatisfactory by reason of softening, and sometimes also was not tolerated. Later he hit upon celluloid, which had been used for closing apertures in the skull by Fraenkel, and this seems to have been very satisfactory. Attempts at inserting such plates through the nostril, which I also had considered, do not seem, as a rule, to be tolerated so well, as in two cases Weir was compelled to remove the celluloid plate, which lacked sufficient support from below. In two of his cases, through an incision in the cartilage within the nose, he chiseled out the bone and also removed a portion of the cartilage, thus restoring the contour. In another case he made a V-shaped incision inside of the mouth to bring down the lip. It will be noticed that in my own case the effect of raising the skin over the bridge of the nose has been to depress the tip of the nose and the upper lip, making what was a very oblique mouth a horizontal one and thus improving the appearance very much.

In the *Annals of Surgery* for June, 1895, Stimson also reports the case of a man, of twenty-five, who had a saddle-shaped nose from fracture. A piece of aluminum five-eighths of an inch long was inserted between the skin and the bones through a small incision in the alæ. As the outline of the nose was not satisfactory, a year later the wound was reopened, the piece of aluminum removed, and in its stead one of gutta percha about half as large again was inserted. The gutta

percha in this case seems to have done very well.

In the *New York Medical Journal* of September 28, 1895, Foote has reported a case operated on by Bull, of New York, by means of a platinum bridge. In this case the upper lip and the nose were separated from the superior maxillary so as to expose the nasal bones. Holes were drilled into the left nasal bone and both superior maxillæ just outside the anterior nares. The platinum bridge had three supports, which were pressed into these holes. A steel pin was thrust through the nose from side to side, holding it securely in position. A considerable amount of swelling and headache followed the operation, but disappeared within a week. The steel pin was removed on the seventh day, and the patient left the hospital in seventeen days. The improvement was very great, but the outline of the nose does not seem to me to be quite as satisfactory as in my own case. There is apparently, however, the same improvement in the position of the mouth from the lowering of the tip of the nose. It seems to me that the multiple holes in the side of the plate are quite sufficient to hold it in place, if I may judge by the result of my single case, instead of the more severe operation resorted to by Bull.

Schimmelbusch (*Archiv für Klinische Chirurgie*, 1895, p. 739) condemns the use of all foreign bodies, including gold-plate bridges, ivory, etc., but the cases which I have cited in this paper show that he is quite wrong in his conclusions against them. In fact, I am by no means sure but that in the second case



I might have been able to construct a new nose by a forehead flap, giving it shape by means of such a gilt silver support.

CASE II.—REMOVAL OF THE ENTIRE NOSE FOR SARCOMA, WITH AN ARTIFICIAL NOSE FIRST OF ALUMINUM AND LATER OF SILVER.

W. J. L., aged fifty, was kindly sent to me at the Jefferson Medical College Hospital, December 3, 1894, by Dr. T. A. Enos, of Townsend, Del. Personal and family history negative. About four years previous to coming under my care the patient had noticed a small wart on the left side of his nose. Two years later he tried various quack cures for it, when it began to grow, and when I saw him it was a circular tumor,  $1\frac{1}{2}$  inches in diameter, extending from a little to the right of the bridge of the nose slightly on the left cheek. The skin of the right side of the nose was infiltrated, and also that of the left cheek to some distance from the growth. (See Fig. 4.)

On December 5, 1894, by knife, bone-forceps, and chisel, the entire nose, excepting a little bit of each ala and the septum, was removed, together with a small portion of the adjacent left cheek, the skin of which was involved. The incision just grazed the inner angle of the left eye. The left antrum was opened slightly. The growth was found to have penetrated deeply into the nostril. The hemorrhage was moderately severe, but easily checked by the Paquelin cautery, hot water, and pressure. The entire wound was then packed with iodoform gauze, and dressed as usual. The wound was sufficiently healed

for him to go home on the 1st of January, 1895. (Fig. 5.)

Fig. 6 shows the result when the parts were completely healed, the large ragged opening shown in Fig. 5 having contracted very satisfactorily.

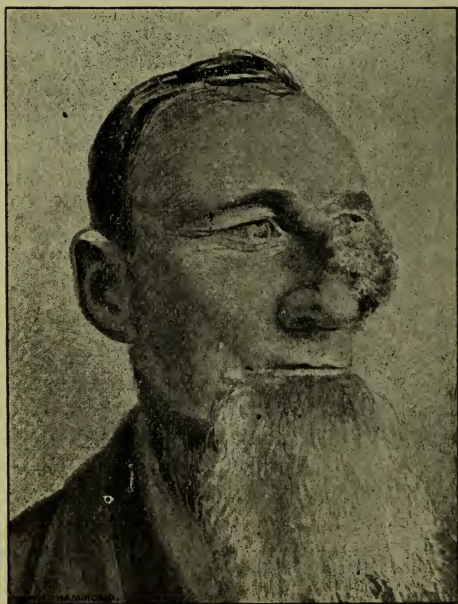


FIG. 4.

The question arose then as to a new nose, and I decided not to do a plastic operation, but to have an artificial nose applied, because, *first*, not only was the nose removed, but a considerable part of the left cheek also: this would require so large a flap as to take a large part of the skin of the forehead

and leave a very unsightly scar. *Secondly*, so broad a flap would not retain any prominence like a normal nose, but would flatten out as a mere flap of skin. And *thirdly*, I feared that so large a flap would probably undergo more or less gangrene.

Accordingly, I again invoked the kindly services of Dr. Hall, who constructed an arti-



FIG. 5.

ficial nose of aluminum, so as to be very light. It was constructed with a flange below which hooked behind the bone, and at the upper end with a short lever actuated by a spring. The lever could be pulled down by a wire which was scarcely visible where it protruded through the artificial nos-

tril. When the lever was pulled down by this wire, it could be pushed behind the projecting bone at the top of the large opening, and on releasing the lever the spring pushed it up just behind the bone and so held the nose in place without spectacles or other artificial means.

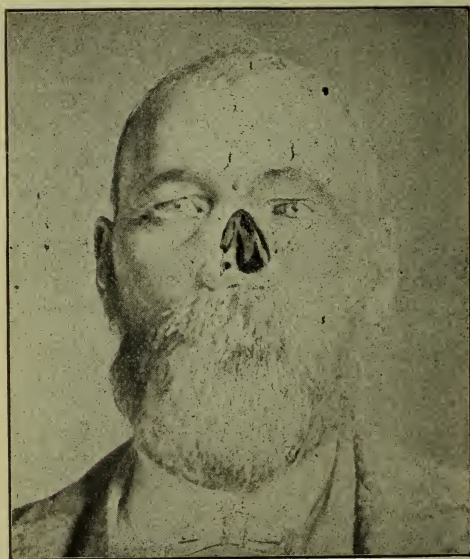


FIG. 6.

The lightness of the material from which it was constructed made the pressure both at the upper and lower borders so slight as to give no trouble. A very unexpected difficulty, however, presented itself after the lapse of between two and three months. The nose came entirely to pieces by the destruc-

tive action of the tears on the soft solder—hard solder cannot be used with aluminum. The metallic wire which pulled down the lever was made of equal parts of aluminum and tin, and this also was dissolved away. Dr. Hall, accordingly, made a second nose of coin silver, which has answered very much better.

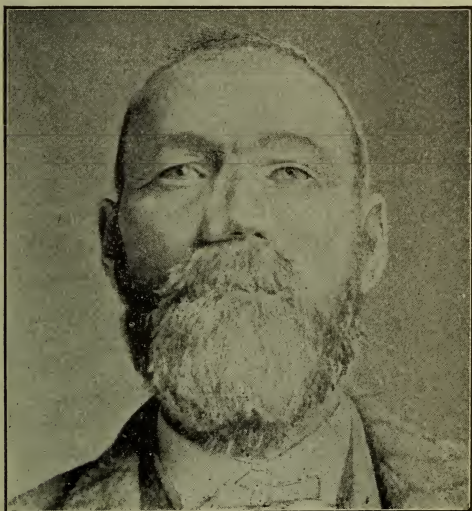


FIG. 7.

Fig. 7 shows the new nose in position. It was painted to resemble a flesh color as near as possible, and improved the patient's appearance very much, the large hole left by the healing of the parts being most unsightly. The disease so far has shown no tendency to recur.



CASE III.—A MARKEDLY ARCHED ROMAN NOSE  
CONVERTED INTO A STRAIGHT GRECIAN  
NOSE.

E. H., aged thirty, entered the Jefferson Hospital March 26, 1896. Six years ago he sustained an injury to the nose which ren-

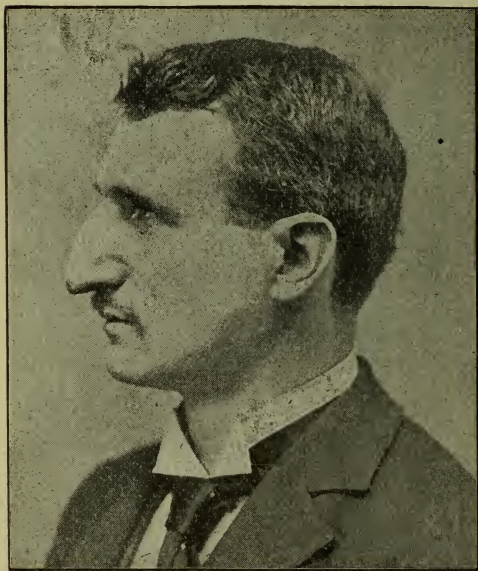


FIG. 8.—Arched nose before operation.

dered a congenital prominence still more marked. The nose, as will be seen by the photograph, was markedly arched, though no more so than many noses whose owners are quite satisfied with them. He stated to me that its appearance interfered seriously oftentimes with his obtaining employment as a



waiter, and that he wished it made into a straight or Grecian nose, though he did not express it in these words. I tried to dissuade him from operation, as his nose was a very respectable one, but he insisted very strongly upon it.



FIG. 9.—Arched nose after operation.

Operation March 26, 1896. A linear incision was made to the bone from near the tip to the base of the nose, and the soft parts dissected loose on each side. With a drill I then penetrated the bones of the nose about the middle of their length. This drill did not go through the soft parts, which were

first retracted and then held out of my way by the drill which I left in place for the time being. I then chiseled out a piece of this shape, ( ), about 22 millimeters long and at its widest part 5 millimeters wide. This made an opening into the interior of the nose. I then attempted with a pair of strong forceps to crush the sides of the nose together, but found they were still very resistant. One or two blows of a hammer on a chisel just at the juncture of the nose with the cheek fractured the two sides of the nose. I was then able to bring them together very well. I then withdrew the drill and by means of a straight needle passed a stout thread of catgut through and tied it tightly. This held the bones in place. A needle threaded with another thread of catgut was passed through the cartilage, which had been partially removed, and the tightening of this ligature brought the whole of it together very nicely. A little trimming of the surfaces was needed with the double rongeur forceps, and then I closed the incision in the skin with Halsted's subcuticular suture. The result was most satisfactory as regards shape, there being a good straight nose instead of the curved nose which the patient originally had.

He made a speedy recovery, without fever or suppuration, and was discharged six days after the operation entirely cured. Fig. 9 shows the result. The scar is scarcely visible.



